

### **REMARKS**

In view of the above amendment, applicant believes the pending application is in condition for allowance.

The Office Action and prior art relied upon have been carefully considered. In an effort to expedite the prosecution Applicant held an interview with Examiner Jaison Joseph and Supervisory Examiner Chieh Fan on November 19, 2007. The Applicant would like to thank the Examiners for their thoughtful consideration of the Applicant arguments and for their cooperation.

Claims 35-59 were rejected under 35 USC 112, first paragraph as failing to comply with the written description requirement. The foregoing amendments are believed to correct the issues.

The aforementioned amendment to the specification addresses an obvious typographical error.

Claims 35, 37, 39, 45, 47, 49, 58 and 59 were rejected under 35 USC 102(b) as being anticipated by Jasper (US 5,381,449).

Claims 36, 38, and 40 were rejected under 35 USC 103(a) as being unpatentable over Jasper, and claims 41-44 were rejected under 35 USC 103(a) as being unpatentable over Jasper in view of Wright (US 5, 809, 083).

The amendment of the claims is directed to the broadest claims (35, 45 & 58) which now includes the following features:

(a) The modulation scheme is either QPSK or  $2^m$ -QAM (m is an integer and takes a value of 3 or more);

(b) the pilot signal is “always” disposed on either an in-phase axis or a quadrature-phase axis in the signal constellation; and

(c) the amplitude of the pilot signal takes a “constant” value which is larger than that of any possible signal point.

Support for these features are found in Figs 5, 6 and 8 and corresponding sections of the specification including page 8.

During the course of the interview a number of changes were proposed and were positively received by the Examiner. Specifically, During the personal interview, the Applicants representatives traversed the 35 U.S.C. §102(b) prior art rejection on the basis that the Jasper et al. reference (USPN: 5,381,449) fails to disclose a pilot symbol having an amplitude larger than amplitudes of possible signal points on a constellation and such pilot symbol being disposed on either an in-phase axis or a quadrature-phase axis in the constellation, as recited in each of independent claims 35, 45, 58 and 59.

Nonetheless, without intending to acquiesce to the aforementioned rejection and in order to expedite prosecution, agreement was reached during the personal interview, as reflected on the interview summary form, that inclusion of the word “always” in the independent claims as shown below would be effective for overcoming the prior art rejection:

“...wherein the pilot symbol is always disposed on either an in-phase axis or a quadrature-phase axis in said signal constellation.”

Further, modification of the pilot signal 84 or 86 in FIG. 6 of Jasper in such a way as claimed in the broadest claim will result in aggravation of the peak to average power level ratio, thus being inconsistent with and contradictory to the object of Jasper. See Col. 2, Ls. 14-19 of Jasper. Jasper features “incessant change” of the magnitude and/or phase of a pilot signal so that the peak to average power level ratio can substantially be reduced (it should be noted in the first place that combination of the pilot signal 84 with the pilot signal 86 is an unrealistic assumption in light of the nature of Jasper because both pilot signal were individually and independently chosen to take the amplitude and angle so as to maximally reduce the peak to average power level ratio), while the broadest claim of the present invention features a pilot signal with “constant” amplitude “always” placed on either the I or Q axis thereby reducing the bit error rate

without influencing on the ratio of peak to average power. See [0031] of the specification. No explicit or inherent teaching, suggestion or motivation is found anywhere to modify the dynamically changing pilot signal as disclosed in Jasper to obtain a static pilot signal as claimed in the present application.

Kaku only discloses a pilot signal similar to the pilot signal 86 in FIG. 6 of Jasper. Thus, the combination of Jasper and Kaku will not render the claimed invention obvious in the same reason as explained in the preceding paragraph.

In view of the above, consideration and allowance are, therefore, respectfully solicited.

In the event the Examiner believes an interview might serve to advance the prosecution of this application in any way, the undersigned attorney is available at the telephone number noted below.

The Director is hereby authorized to charge any fees, or credit any overpayment, associated with this communication, including any extension fees, to CBLH Deposit Account No. 22-0185, under Order No. 20402-00579-US2 from which the undersigned is authorized to draw.

DATE: November 29, 2007

Respectfully submitted,

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